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Canadian "Pleuro-Pneumonia."

We this week offer the profession some of the evidence given in the Government papers as to the nature of the disease for which Canadian cattle are scheduled. There are one or two other reports which we shall print next week, and then veterinarians will be in a better position to judge whether some further test is not requisite to determine the true nature of this disease—a disease which resembles "pleuro" in its general characteristics but constantly presents distinctive differences. The differences are admitted by the Board of Agriculture. No matter how large or how small the lesion these differences are evident, and therefore the two conditions cannot be said to differ merely in the stage or extent of disease. Such differences have never been noticed to exist in real pleuro-pneumonia in Europe, nor are they recognised in Australia, where the contagious disease is well-known. They are recognised in the United States where contagious pleuro-pneumonia is well-known and where this other disease is sometimes seen and readily differentiated.

To call the Canadian lung disease "the North American *type* of pleuro-pneumonia" is simply to beg the whole question, and is opposed to all pathological analogy. In no other specific disease is there a constant variation of the lesions determined by geographical distribution. Glanders, swine-fever, and foot-and-mouth disease are the same clinically and on post-mortem examination all over the world. There is absolutely no reason to assume that pleuro-pneumonia possesses the peculiarity of altering its lesions in Canada.

Registration of Shoeing Smiths.

Last week Mr. J. G. Parr made a very excellent suggestion that at our annual meeting time should not be wasted on the Report, which merely states the past work of the Council. He then mentioned some subjects which need discussion. A very simple plan, and one followed at many annual meetings of other bodies, is for the Chairman, as soon as the official report is adopted, to invite discussion on any matter of general corporate interest. This saves time, and is the most orderly method of permitting every member to offer his opinions.

One of the subjects Mr. Parr refers to is the Registration of Shoeing Smiths, and he draws an inference that the examination is defective because in an agricultural show schedule, at which registration is provided for, only one judge is appointed. We have made enquiries and find that this is not the case. Under the rules for registration it is provided that of the judges "at least *two* shall be members of the R.C.V.S." We have no doubt the Leicestershire Agricultural Society will adopt this rule, and when the catalogue appears we shall see more than one well-known V.S. on the list of judges.

CASES AND ARTICLES.

INTESTINAL OBSTRUCTION.

By McLauchlan Young, M.R.C.V.S., Dundee.

On the evening of Tuesday, 2nd May, I was called to attend a very valuable spaniel dog (11 months old) which had been ailing for two days. On my arrival I found the dog very much exhausted, the pulse extremely weak and wiry, and the temperature but slightly elevated. On withdrawing the thermometer from the mouth I noticed slight traces of blood on my finger and thermometer, and on enquiring was informed that he had been vomiting matter tinged with blood. There being no fæces lying about the kennel I requested the owner to keep any passed for my inspection next visit. The animal had no inclination to move but showed no symptoms of pain, there was a peculiar sour odour in the mouth. He lapped a little fresh milk but took no other food.

Diagnosing the case as one of irritation and derangment of the stomach, I ordered bismuth subnitrate grs. v, and sod. bicarb, ʒss. twice daily. On the following morning I found the patient in the same position, the temperature the same but the pulse was weaker although regular. I then ordered a teaspoonful of port wine and milk three times a day. He died, however, about half an hour after I left.

In the afternoon I made a post-mortem examination and found a piece of stone—ordinary road metal—firmly fixed in the small intestine. The stone measured about an inch square. There was little or no inflammation round the seat of the stone and the mucous membrane of the stomach and beginning of the duodenum was abraded at several points. The stone being square fluids and gases could pass, and I found a considerable quantity of fluid both behind and in front.

Two questions naturally suggest themselves "How long had the stone been there, and what was the immediate cause of death? From the condition of the walls of the bowel round the stone it could not have been fixed long, although it might have been in the stomach for a day or two. Again, the cause of death was certainly not enteritis. My theory is that the stone had shifted and become fixed, and pressing on the nerve endings death resulted from nervous shock. I am aware we often find stones and other foreign bodies in the intestines of horses and cattle on post-mortem examination, and these might have

been there for a long period causing no trouble, but they are not the same size in proportion to the intestines.

Has any other practitioner met with a similar case?

[These cases are not excessively rare in a dog practice and careful manipulation of the abdomen, if the animal be not too fat, will often verify the diagnosis. Are there any successful cases of operative treatment?—ED.]

LUNG DISEASE IN CANADIAN CATTLE.

The recent issue of a Government report—or rather, a collection of papers and correspondence—on this subject is of special interest to agriculturists and veterinarians. The agricultural press declines to discuss the question whether the disease is contagious pleuro-pneumonia or not. It takes for granted that the opinion of the Board of Agriculture is final and that the Board's experts are infallible. The Marquis of Ripon is Colonial Secretary, and through him all correspondence passes between the Canadian Government and the Board of Agriculture. The Marquis is in a position to hear both sides, he is a a responsible Minister of State, and has expressed an opinion on the papers and reports which have passed through his hands. Because his lordship does not accept the diagnosis of the experts of the Board of Agriculture, and because he acknowledges "a strong presumption against their views," *The Live Stock Journal* and *The Farmer and Stock Breeder* denounce him in terms only employed by excited politicians. There is no difference of opinion as to what should be done with cattle imported from any country where reasonable security against the importation of disease does not exist. If cattle from Canada, on arrival here, are found to be affected with contagious pleuro-pneumonia, the trade should be stopped. If, however, they merely show on post-mortem examination an occasional pulmonary lesion which is not "pleuro," then an injustice is done to Canada, and to the public here who desire store-stock, by calling the disease contagious pleuro-pneumonia and scheduling the country. The whole difficulty is one of diagnosis, and surely the resources of science are not exhausted when the veterinary advisers of the Board of Agriculture have made a declaration. *The Live Stock Journal*, in its zeal for protecting home industries, considers correct diagnosis of no practical importance, and would schedule any country from which one animal of any cargo showed lung changes which at all resembled "pleuro" in home cattle. This rough and ready method of deciding the nature of pathological lesions may honestly be accepted by a layman but can hardly be satisfactory either to scientific veterinarians who desire exact knowledge, or to State officials who preside over the relations of this country to its colonies. We pay for our own domestic preventive measures and the unnecessary slaughter of a herd or two of suspected home animals is of little moment, even when the loss is due to a diagnostic error. When the loss is borne by a colony which, rightly or wrongly, is convinced that its stock is free from any contagious malady, the error becomes a serious matter and no method of verifying the diagnosis should be neglected.

The history of the whole subject is contained in the two publications issued by the Board of Agriculture and we shall attempt to honestly and fairly place it before our readers. In September, 1892, Canadian cattle were admitted into Britain after inspection at the port of landing. On October 6th, two cargoes landed at Dundee from the steamships "Monkseaton" and "Hurona" from Montreal, were sold and distributed over various farms in Scotland. Seven animals that had formed part of the cargo of the "Hurona" were bought by a Mr. Guild and sent to his farm at Parkhill, in Fife. Next day one was found ill and in consequence was removed to another farm called Lindores. On the 8th the district veterinary inspector saw it and diagnosed disease of the lungs. On the 11th he telegraphed to the Board his suspicions of "pleuro;" the animal was killed, the lungs sent to London, and his diagnosis confirmed on the 13th. Both lungs were affected. All the animals on the Parkhill and Lindores farms were ordered to be slaughtered, and steps were taken to trace the rest of the cargoes.

On the 23rd, the lungs from a home-bred beast slaughtered at Parkhill were found to be diseased and on arrival in London on the 25th were said to be affected with pleuro-pneumonia; the veterinary inspector's report stating that "the lesions in the affected lung were more marked though not perhaps of quite so long standing as in the previous case." This case is remarkable as its infection is imputed to its having passed one night in a shed with the Canadian cow which was sent from Parkhill to Lindores 17 days previously. This is probably the shortest period of incubation on record, and yet the lesions in the lung "were more marked" than in the animal which infected it. Two other cases were discovered later, and all the Canadian animals which could be traced were slaughtered, with the result that one more set of lungs were found diseased.

The result of all this was that the Board of Agriculture issued an order by which cattle from Canada could only be imported for slaughter at the port of landing. The order came into force on November 21st so as to allow all cargoes on the way here to be landed as before.

On Dec. 19th, the Secretary of the Board, in answer to an enquiry from the Colonial office, wrote stating "that 13,557 cattle have been landed in Great Britain from Canada since the arrival of the cargoes of the 'Monkseaton' and 'Hurona,' and that up to the present time no disease has been reported to exist in any of these animals." We may add to this that none was afterwards reported.

During the winter months the trade in Canadian cattle is not carried on, but the Canadian authorities in view of next year's trade set to work to prove their statements that the Dundee cases were not contagious pleuro-pneumonia and that the disease did not exist in Canada. A portion of one of the lungs was submitted to Professor W. Williams and Professor W. O. Williams who telegraphed "are firmly convinced that the portion of lung submitted to us was not affected with contagious pleuro-pneu-

monia." From Canada Professors McEachran and Smith telegraphed "pleuro-pneumonia does not exist here."

The Canadian Government offered to pay the expenses required, for the Board of Agriculture to send experts to Canada to satisfy themselves of the non-existence of the disease, but the offer was declined. One very remarkable fact was brought forward as proof of the freedom from disease of Canadian cattle. The Board was reminded that in 1890 a cargo landed here by the steamship "City of Lincoln" was declared to be infected with pleuro-pneumonia, but Canada was not scheduled, and out of 200,000 cattle imported since that date not a single case of disease had been discovered. If Canada were infected in 1890 there should be no difficulty in finding the disease there in 1894 and yet to this date no veterinarian in the dominion has been able to discover a single case.

In reply to the facts and arguments brought forward by the Canadian authorities, who hoped that the British Government would remove the embargo placed upon Canadian cattle, a letter was written by the Secretary to the Board of Agriculture on March 13th, 1893. This letter practically acknowledged that the department was convinced that pleuro-pneumonia did not exist in Canada, but it did not feel satisfied that "reasonable security," as required by statute, existed against the possible introduction of disease through Canada by cattle from the United States. The Board therefore whilst declining to re-admit cattle from Canada agreed to special arrangements by which Canadian animals would be slaughtered at the port and carefully inspected for such a period as would afford confirmatory evidence of their freedom from disease. If the imported animals were found healthy the Board would allow free entry to be resumed.

On the resumption of the Canadian cattle importation in the spring of 1893 every animal was slaughtered and carefully examined, with the result that cases of lung disease were again detected, and an Order issued on July 6th which revoked the special examination and again prohibited importation except for slaughter at the port. The events which led to this change are detailed in a letter of July 20th from the Secretary of the Board of Agriculture. The trade reopened on May 9th by the arrival of a cargo of cattle at Liverpool, and in all 67 cargoes, comprising 30,561 head of cattle were subjected to special examination.

On May 29th the lungs of an animal landed at Deptford, ex S.S. "Brazilian," were decided to be affected with pleuro-pneumonia.

On May 31st, two sets of lungs taken from cattle landed at Liverpool, ex S.S. "Lake Winnipeg," were condemned by the veterinary inspectors as presenting lesions characteristic of pleuro-pneumonia.

On June 3rd, a set of lungs was sent from Liverpool, taken from an animal landed ex S.S. "Lake Superior"—these were said to *present no evidence of pleuro-pneumonia.*

The Board of Agriculture had promised the Canadian authorities that any lungs considered diseased should be seen by a veterinarian appointed by the Canadian Government. All these cases referred to above were thus jointly examined, and the following reports show the variations of opinion arrived at.

REPORT by Professor BROWN, C.B., on the LUNGS from an Ox landed at LIVERPOOL *ex* S.S. "Lake Winnipeg" and forwarded by the INSPECTOR on May 29th.

It has been ascertained that the ox from which the lungs were taken was one of 250 cattle, sent from Manitoba on May 4th, shipped from Montreal on May 10th, and landed at Birkenhead on May 21st.

In regard to the breed of the animal, the inspector at Liverpool remarks that it belonged to "the same class of animals that had recently been brought from the United States affected with pleuro-pneumonia, that is, aged oxen that had been worked."

On examining the lungs it was at once recognised that the diseased portions presented the ordinary characters of contagious pleuro-pneumonia, *i.e.* enlargement, consolidation, limited to a definite area, and thickening of the pleural membrane with a fibrous deposit on the surface. The state of the pleura is a common, though not essential, feature of pleuro-pneumonia.

On making a section of the diseased portions of the lung, the cut surface exhibited the usual morbid appearances, the lobules over the whole extent of the diseased part were congested and were separated by light yellow bands.

A quantity of viscid fluid of a straw colour exuded from the cut surface.

It has been suggested that the appearances of the cut surface of the lung of this Canadian ox differed in some respects from those seen in pleuro-pneumonia in this country. For example, it has been pointed out that the lobules in the diseased part, instead of varying in colour from light pink to dark red, or nearly black, were of a uniform vermilion tint, and that the interlobular bands were rather more dense than is generally observed in pleuro-pneumonia, and did not exhibit many small cavities (lymph spaces) filled with fluid.

It is undeniable that these peculiarities did exist, and it is important to notice that they have from the first been recognised as special characteristics of pleuro-pneumonia in animals which have been landed in this country from the United States regularly since 1878.

No satisfactory explanation of the deviations referred to has been offered, but the history of pleuro-pneumonia on the North American Continent proves, beyond doubt, that it is as contagious and fatal as the pleuro-pneumonia of Europe.

For the purpose of the microscopic investigation sections were prepared of—(1) the lung of the Canadian ox *ex* "Lake Winnipeg"; (2) the lungs of cattle affected with pleuro-pneumonia landed from the United States; and (3) lungs of home-bred cattle which had been affected with pleuro-pneumonia.

Examination of the sections showed that the morbid conditions deviated to a very slight extent in the different specimens.

Some of the air-cells contained more or less fibrous deposit intermixed with cells which varied in size and number in different parts of the lung. These cells were in some instances separated from the lung tissue of the various specimens and examined by the aid of the highest powers of the microscope, and were found to be absolutely identical in form and structure.

The interlobular bands were, in all cases, composed of extremely fine fibrous tissues, forming a delicate network in which were enclosed cells similar to those found in the air cavities of the lungs.

The blood-vessels were in certain parts of the sections plugged, and the bronchial tubes showed disquamation of the epithelium, and a considerable deposit of cells

had occurred in many cases around the exterior of the tubes.

After a prolonged and careful inquiry, I am forced to the conclusion, in which my colleagues concur, that the Canadian ox, *ex* "Lake Winnipeg," was the subject of contagious pleuro-pneumonia, identical in morbid anatomy with pleuro-pneumonia among cattle in the United States, and differing only in unimportant characters from the European type of the disease.

(Signed) G. T. BROWN,
3rd July, 1893.

The Secretary,
&c., &c., &c.

To the HIGH COMMISSIONER for the DOMINION of CANADA.

SIR,

With the assent of the veterinary officers of the Board of Agriculture, I have examined the lungs of four Canadian bullocks. These lungs were sent to London by the Board's portal inspectors, and may be distinguished as A, B, C, and D.

(A) Lungs sent from Deptford, May 29th
(B) Do. Liverpool, May 31st
(C) Do. do. May 31st
(D) Do. do. June 3rd

I assume that all the lungs were sent by the portal inspectors because they presented some indications of disease resembling pleuro-pneumonia.

In the lungs marked (C) I detected no disease, in the others I recognised lesions, which, though differing in degree, were similar in kind. There was a "marbled" area of lung—in one case (lung B) affecting the greater part of one of the small lobes, and in two cases (A and D) affecting the border of a lung. The "veins" or septa formed by the distension of the interlobular connective tissue enclosed lung-lobules which were altered in colour and texture. These alterations I can more easily describe if I first quote from Professor McFadyean some sentences descriptive of the lesions found in the lungs of cattle suffering from contagious pleuro-pneumonia. He says:—

"It is very important to observe that a certain form of 'marbling' is in no way peculiar to the contagious pleuro-pneumonia or even to the bovine species. A marbling due to more increased prominence of the interlobular connective tissue of the lung is admittedly met with in sporadic pneumonia of the ox, and in some cases even in the horse and pig. But an essential feature in the marbling of contagious pleuro-pneumonia is the variety of colour presented by the groundwork or pulmonary parenchyma, and I agree with those who hold that we know of no other disease in which this form of marbling is produced." . . . . "The sections of pulmonary lobules appear as coloured islands surrounded by pale septa, and if the consolidation is of any considerable extent these islands are not uniform in colour. The shades of colour commonly present are buff or yellow, light red or salmon-coloured, deeper red and deep dark red." . . . . . "In some portions of the consolidated area the septa may be described as composed of a meshwork of delicate connective tissue filaments saturated with a straw-coloured liquid, which exudes from them as soon as they are cut across. Some of the septa are beset not with fluid lymph but with coagulated fibrine, and thus acquire in consequence a greater firmness." . . . . . "Pleurisy is an exceedingly common but not absolutely constant accompaniment of the lung consolidation."

The appearances presented by the Canadian lungs differed from the appearance caused by contagious pleuro-pneumonia in many respects, but chiefly as follows:—

1st. There was a marked uniformity in the colour of the affected lung tissue; there was an absence of that "variety of colour" so characteristic of pleuro; there was but a slight degree of consolidation affecting lobules in the centre of areas distinctly "marbled."

2nd. The septa were firm and hard, not soft and fitted with fluid as in the early stages of pleuro-pneumonia.

3rd. There was no thickening of the pleura or deposit on its external surface, although in each case the lesions of the lung had extensive contact with the under surface of the pleura.

These differences I consider sufficient to establish a distinction between contagious pleuro-pneumonia and the disease occasionally found in the lungs of Canadian cattle after a voyage across the atlantic.

The exact nature of the disease I am unable to determine by a mere naked-eye examination of the lung lesions. Dr. Sims Woodhead has portions of the lungs (B and D) upon which he will report after microscopical examination.

The history, so far as it is known, of the disease found in the lungs of Canadian cattle, is inconsistent with the theory that it is pleuro-pneumonia. Over 5000 animals have been imported and slaughtered. Their lungs have all been critically examined by veterinary experts, and yet only one case has been found which the Board of Agriculture consider "suspicious."

Not one animal has during life shown any signs of disease indicating pleuro-pneumonia.

Not a single lung has been found to contain any old-standing lesions such as are commonly found in this country in infected herds.

The history and appearances are such as to convince me that the disease is not contagious pleuro-pneumonia, but a condition arising from causes acting only upon individual animals.

Your obedient servant,
(Signed) WILLIAM HUNTING, F.R.C.V.S.

By way of assisting in getting at the truth, specimens of these lungs were submitted to a number of eminent pathologists. To Dr. Sims Woodhead were sent the following:—

1. Specimen from ox *ex* S.S. "Lake Winnipeg," declared to be pleuro-pneumonia.

2. Specimen from ox *ex* S.S. "Lake Superior," declared not to be pleuro-pneumonia.

3. Specimen from English ox, affected with undoubted pleuro-pneumonia at Hendon.

After describing in detail the microscopical appearances, the following summary is given by Dr. Woodhead.

Summary.

We have in specimens Nos. 1 and 2 certain points of resemblance which may of course be due to the fact that the disease in the cases is of much more recent origin than in specimen No. 3, but it is interesting to note that although one has been described as a case of pleuro-pneumonia, the other has been passed as not coming under that heading.

I incline to the opinion that in both cases the catarrhal element is much more marked than in No. 3, which undoubtedly represents all the characteristics of contagious pleuro-pneumonia.

In No. 3, we have a process which has been going on for a much longer time than in the other specimens, whilst the thrombi so characteristic of this condition are also well marked; these thrombi and the accompanying hæmorrhages being entirely absent in the other two specimens.

In certain cases of "pleuro-pneumonia contagiosa," taken at an early stage, I have found the air-vesicles filled with cells, but these, unlike the cells in specimens Nos. 1 and 2, appear to be derived rather from the blood vessels, that is, are leucocytes, rather than from the proliferation of the epithelial cells.

They appear to pass from the blood-vessels at the same time that the cells and fibrinous lymph pass into the lymph spaces, so that the exudations in the lymph spaces and into the air-vesicles are much of the same character. This is not the case in specimens Nos. 1 and 2, in which we have a well-marked nucleus and a large zone of protoplasm, indicating that these cells are derived by proliferation from the cells lining the air-vesicles. I have, however, found catarrhal changes similar, if not so well marked, in undoubted cases of contagious pleuro-pneumonia.

In all three specimens there is an exudation of fibrincus lymph both into the septa and into the air-vesicles. From the nature of the tissue of the interlobular septa of the cow, we should always expect this to be a marked feature whatever the nature of the inflammation and the irritants setting it up; the connective tissue is so loose, the lymph channels are so large, and anastomose so freely throughout the lung with the lymphatics of the pleura and with the air-vesicles, that any irritant setting up an acute inflammation would cause an outflow from the vessels into these spaces.

Most of the features met with in all three cases are present in cases of "pleuro-pneumonia contagiosa," but in the specimens Nos. 1 and 2 the well-marked collapse, the bronchitis in some of the bronchi, and the catarrhal profileration of the cells of the air-vesicles are not so characte istic of the ordinary contagious pneumonia, and appear to indicate that there is some difference, certainly of degree if not of kind, between the disease giving rise to the appearances in these two specimens and the third or undoubted case of contagious pleuro-pneumonia No. 2, the case passed as not being pleuro-pneumonia appears to be a kind of "cross" between Nos. 1 and 3, but it resembles No. 1 more closely than No. 3.

(Signed) G. Sims Woodhead.

Portions of two of the specimens sent to Dr. Woodhead were forwarded to Professor Williams. That from the "Lake Winnipeg" ox was marked B, that from the English ox, undoubtedly infected, was marked A.

Professor Williams' Opinion.

I have no hesitation in pronouncing that the portion contained in the bottle marked "A" is from a case of old-standing pleuro-pneumonia; although, from its chronicity, the exudate presents characters not very frequently met with.

That portion of lung contained in bottle marked "B" I found to be from a case of recent broncho-pneumonia; some parts of it, in fact, being still normal, whilst in the contiguous bronchi and air-cells the epithelium was in an early stage of degradation and desquamation, whilst large and small blood-vessels there is no plugging, such as is found in pleuro-pneumonia. There appears to have been, as frequently happens in bronchitis, small localised areas of capillary inflammation, accompanied by exudation into a few isolated air cells, but the exudate, however, is not of the same character as that found in pleuro-pneumonia.

Naked-eye Appearances.

A.	B.
Pleurisy well marked. Increased (greatly) fibrous tissue in the interlobular spaces.	Pleurisy well marked, Greatly increased fibrous tissue around the bronchial tubes, also considerable amount in interlobular connective tissue.
The appearance of the true lung substance is as of a solid body.	The appearance of the true lung substance is of a spongy or porous body.

On comparing the micro specimens from the two lungs I found the following characters:—

A.	B.
Air cells mostly blocked with fibrous material (stained yellow in drawing) which shows rather less of the granular appearance and more of the fibrillar character than is usually seen in ordinary cases of pleuro-pneumonia, and there are also numerous leucocytes intermixed. No doubt this fibrillar condition is due to the chronic character of the case.	Air cells free from fibrinous deposit, but partly blocked in some by masses of shed and proliferating epithelium. It will be noticed that this epithelium is not stained yellow; it seems to resist the influence of the pieric acid in the piero-carmine stain Some of the walls of the alveoli are left bare; the alteration in the epithelium is but slightly advanced in many of the alveoli, indicating the early stages of the bronchitis.
The blood-vessels are also blocked with a fibrous deposit containing the entangled blood corpuscles.	The blood-vessels are pervious with the endothelium entire, and muscular coat normal, with slight indication of swelling in the fibrous coat.
The muscular and fibrous coats do not seem materially altered.	
The bronchi present, so far as their walls are concerned, an appearance differing little from normal, and many of them retain their epitheliums entire.	The bronchi show a commencing desquamation and proliferation of their epithelium with thickening of their fibrous wall, especially in the external and loose parts.

To Dr. Klein were sent two specimens—sections of lung in spirit. One was marked by having a piece of string passed through it, the other was not marked at all. These were supplied in this way by Professor Brown, apparently as a test of any one's ability to distinguish them. One section was supposed to be contagious pleuro-pneumonia and the other Canadian lung disease.

Dr. Klein's Opinion.

After detailing the microscopical appearance of each portion of lung—the one marked with a string being called A and the one not marked B—he says:

From this it will be seen that the conditions of the two lungs is distinctly different—in lung B the process is probably of longer duration, judging from indications of "organisation" in the septa and in the large vessels.

Comparing the two lungs A and B with the lung of typical pleuro-pneumonia, I am of opinion that lung A is more like typical pleuro-pneumonia than lung B. The condition of the septa, the foci of "organisation" in the septa and vessels, and the condition of the air-cells; fibrin threads filling the cavities, leucocytes in their walls, present in lung B, suggest this; in lung A these conditions are absent. The blocking-up of the bronchi in-

fundibula and the air-cells near them, and the septa with leucocytes and granular masses, make lung A like the typical pleuro-pneumonia lung.

(Signed) E. KLEIN.

To Professor Nocard were also forwarded specimens from the lung of the Canadian ox and from the lung of the English case of "pleuro."

M. NOCARD'S OPINION.

As soon as I returned from my holidays I made an examination of the two fragments of lung which you sent me. They are certainly very dissimilar.

No. 1 exactly reproduces the type usual in France of acute pleuro-pneumonia. The very abundant exudate which distends the inter-lobular lymphatic spaces, and the alveoli themselves, is very rich in fibrin, very poor in leucocytes. . . . . .

No. 2, on the contrary, much resembles the specimens which I collected in 1890-91 from American oxen brought to the market of Villette. The exudate, less abundant, is much richer in leucocytes. . . . . .

ELECTION ADDRESSES.

TO THE VETERINARY PROFESSION.

Gentlemen,—Four years ago you did me the honour to return me to Council as one of your representatives. Since then most important changes have taken place. The New Charter and the Four Years Scheme are accomplished facts, and I hope may prove to be to the best interests of our profession, though I decidedly think some provision should be made, apart from the college curriculum, for ensuring *practical knowledge* on the part of the student.

I hope this question may yet be dealt with by the Council.

Upon my accession to Council I found that the scheme for the Registration of Shoeing-Smiths had already been adopted.

I consider it an essential point that our profession should be amongst the leaders in any movement calculated to advance the art of shoeing, and, further, that we should have representatives on this committee not only to assist in the above but also to hold and exercise a controlling hand in the interests of the veterinary profession.

I do *not* approve of the method of examination that has been held in the past.

I maintain that the only true test of a Shoeing-Smith is, and must be, a practical one. I strongly object to the existing system whereby Veterinary Surgeon who act as Examiners of Shoeing-Smiths sign the certificates of successful candidates; these certificates so signed being liable to mislead the public. The Examiners should simply make their report to the Farriers' Company, who should then register the successful men. Much as I object to the word Farrier in connection with the veterinary profession, I object in a less degree only to its being applied to Shoeing-Smiths. Let these men be known and registered solely as Shoeing-Smiths, and the word Farrier will die, as it rapidly is doing, of inanition. The title Farrier applied to Shoeing-Smiths can serve no good purpose, and so used is sure to lead to misapprehension and abuse. I hope when delegates from our Council are again appointed that these points will be secured.

The question of legislation and protection for Colonial practitioners has been before the Council, and, as a member of the Committee which have had the matter in hand, I have given it a steady support. I hope that our efforts will meet with some success.

The Registration Committee of your Council, of which I am also a member, have had many cases to deal with, and each succeeding year shows a marked increase in the number, indicating that members of the profession are looking more and more to the Council for that protection which it is their right to claim. The work of this Committee necessitates much time being given, unknown to those not on the Council, but it is with pleasure I give the time so spent, as I believe that this Committee does real good work for the profession. By it a watchful eye is still being kept on the "Veterinary Chemist" question, and I think I speak for the Committee generally in saying that when a good case occurs they are quite prepared to test the matter again.

During my four years of office I have attended forty-two Council Meetings and forty-one Committee Meetings.

Last year the Council did me the great honour of electing me amongst the first Vice-Presidents under the new Charter, an honour which, I venture to hope, shows that I have the confidence of my colleagues on the Council. If I have also that of the veterinary profession, and am again returned to Council I shall endeavour in the future, as in the past, to serve you to the best of my ability.

I am, Gentlemen, yours obediently,

Newcastle-under-Lyme, R. C. TRIGGER.
May 1st, 1894.

TO THE MEMBERS OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

Gentlemen,—Three years ago you were pleased to elect me a Member of Council, when at that time the Ninth Clause was the burning question of the day. The New Charter and also the Four Years Scheme are reforms which I have every hope will prove to be to the best interests of our profession at the present time, and more so in the future.

The Pupilage question did not meet with my support, but I have seen great reasons to change my opinion, and now I am convinced it is time some scheme be formulated whereby at least students should spend even the vacations with qualified practitioners.

I will support any well considered plan for dividing the country into electorial distrists in order that each portion of the kingdom shall be more fairly represented on the Council.

The Registration of Shoeing Smiths had already been adopted before my accession to Council. The combination of the Farriers Company, the Royal Agricultural Society, and the Royal College of Veterinary Surgeons, with the object of improving the art and certifying the skill of those who are proficient is right *in the main*, and if our Council had declined

to co-operate the scheme would not have been abandoned, and we should simply have been left outside with no controlling voice whatever. But I do not approve of the *manner* in which examinations have been held in the past. The only true test of skill and proficiency of a shoeing smith must necessarilly be a searching *practical* one. I strongly object to veterinary surgeons who act as examiners of shoeing smiths signing certificates of successful candidates, for such certificates so signed are misleading to the general public. The Registration Act requires further enforcement, and the Council should continue to zealously protect our interests, and obtain at once a distinct judgment upon the legality of chemists useing the term "veterinary."

Notice should be taken by the Council of the gross injustice of permitting military and naval officers, pensioners and policemen occupying positions in the public service which should be rightly held by veterinary surgeons. Regarding the protection of our Colonial brother practitioners, the same has had my hearty support, and I hope the efforts of the Council will meet with success. I will support any measures taken by the Council to control the conduct of members of the profession; and if elected it will be my earnest endeavour, as in the past three years, to serve you to the best of my ability.

I am, Gentlemen, yours obediently,

Leeds Vety. Infirmary, A. W. Mason.
15th May, 1894.

To the Members of the Royal College of Veterinary Surgeons.

Gentlemen—At the earnest request of several professional friends I have been induced to offer myself as a candidate at the ensuing election for a seat on the Council. It is true no great question is at the present moment agitating the profession, but still I think there are matters which demand increased attention at the hands of the Council. I refer especially to the laxity with which the Veterinary Surgeons Act of 1881 appears to be enforced. Something must be done to prevent unqualified persons from practising as veterinary surgeons, for even though no further legislative advantage may be obtained yet much may be effected by a more stringent application of the powers we already possess.

Should you be pleased to elect me on the Council I shall endeavour to give special attention to this matter, with results which will, I trust, greatly benefit the profession.

In regard to the question of advertising, I think the Council must approach this question wisely and carefully. I should support any measures which tended to suppress disgraceful advertisements, but still latitude must be given to those who have for years adopted certain methods of practice. I am of opinion therefore, at the present time only flagrant cases should be dealt with. After a while, however, and when the time is ripe for it, advertising may be altogether forbidden.

The educational question still needs some share of attention. The matriculation examination is now sufficiently advanced, but in respect to the professional examinations, I think a more thorough practical test is needed. The student still, I fear, knows too little of the work by which he expects to live.

I think the time has arrived when the Council might approach the University of London with a view to inducing that Institution to hold special veterinary examinations and grant a Degree of Doctor of Veterinary Medicine—D.V.M.

I trust you will not deem it egotistical on my part, if I venture to hope that the legal training which I have received, in qualifying for a Barrister at law, will enable me to be of some additional service to the profession, and should you do me the honour of electing me, I shall have but one object in view, viz: To advance the veterinary profession, which at present, at any rate, occupies almost entirely the whole of my energies.

I am, Gentlemen, yours faithfully,

W. F. Barrett, M.R.C.V.S.

46 Lewisham High Road, London, S.E.

To the Members of the Royal College of Veterinay Surgeons.

Gentlemen,—I have now served you on our Council for three years, and I hope in a manner that meets with your approval. In offering myself for re-election I think it due to you that I should briefly indicate my opinion on one or two subjects which are, in my judgment, important to the profession and demand the attention of our Council.

First, the four years' scheme should be made a reality, and the Council should insist on the fulfilment of every condition contained in it. In order to effect this the Council and schools should act in harmony, the aim of each being to raise the standard of attainment in candidates for the diploma of our College. No small part of the Council's duty in this particular consists in the election of examiners. The method now in use for selecting these officers is not at all good. At present, candidates for this position submit their names to the Council when many of its members know little of their qualifications for the duties of that office. I am prepared to suggest a plan by which this difficulty can be removed.

In the second place, I think it is now time for the Council to act with more vigor in removing the names of those whose conduct is unworthy of our profession from the Register. In fact I think we ought long ago to have exercised the power conferred upon us for this purpose by Parliament.

I feel sure you approve the activity of the Registration Committee in prosecuting men who wrongfully use our exclusive title. I should support a continuance of that policy and hope that members of the profession will assist the Council by giving information respecting those who break the law in this particular in their districts.

If re-elected I should, as hitherto, exereise an independent judgment on all that comes before the Council and do my best to promote our common welfare.

I have the honour to be, Gentlemen,

Your obedient servant,

St. Albans, J. Fraser.

To the Members of the Royal College of Veterinary Surgeons.

Gentlemen,—Having been nominated as a candidate for Council at the approaching election, I have decided to place my services at your disposal. In doing so I am influenced by the fact that there are this year extra vacancies to be filled, arising through deaths and resignations, and it is to fill one of these extra vacancies that I venture to ask you to return me. I have no wish whatever to supplant your present representatives who are seeking re-election, as I believe that during the past four years they have carried through most important legislation, and are fairly and fully entitled to retain their seats.

If returned to the Council my every aim and object would be to advance the interests and dignity of the veterinary profession. I should steadily support legislation having for its aim the more *practical* training of the veterinary student, and such measures as would widen the field of usefulness for veterinary practitioners.

I should support the scheme for the Registration of Shoeing-Smiths *only* on condition that the veterinary surgeon's interests should be absolutely and fully safe-guarded, that a practical examination of a shoeing-smith only should be recognised, and that no misleading titles should be allowed to be used by Registered men. They must remain "Shoeing-Smiths" only.

The cry from the Colonial practitioners requires attention, and I should heartily support any measure calculated to improve their position with regard to unqualified and unscrupulous men, who oppose them.

I should support the Council in any action they might take to determine finally the right, or otherwise, of chemists to use the word "veterinary."

Should you honour me by returning me as one of your representatives I am prepared to devote the necessary time and attention to the work of the Council and its Committees—which latter I take it are equally important as Council work, and it will be my earnest endeavour to prove myself worthy of the confidence reposed in me.

I am, gentlemen,

Norfolk St., Sheffield. Your obedient servant, Joseph Abson.

VETERINARY SOCIETIES.

YORKSHIRE VETERINARY MEDICAL SOCIETY.

On Friday, the 27th ult., the spring quarterly meeting of this Society was held at the Queen's Hotel, Leeds, the president, Mr. W. A. Mason, F.R.C.V.S., being in the chair. There were also present Mr. James Scriven, of Tadcaster, the hon. treasurer; Mr. W. F. Greenhalgh, of Leeds, the hon. secretary; and Messrs. G. E. Bowman, A. McCarmick and F. Somers, Leeds; G. Clarkson, Garforth; W. Robinson and B. Smith, Barnsley; H. Snarry, York; J. F. Fletcher, Sheffield; A. W. Briggs, Halifax; Frank Scott, Knaresboro'; James Cooke, Scarborough; Philip Deighton, Riccall; G. Whitehead, Batley; T. W. Clough, Morley; and other gentlemen who omitted to record their names as requested in the book provided for the purpose. The visitors present were Messrs. W. Woods, Wigan; J. H. Pickering, Garforth; A. J. Lane, Leeds; and T. Longworth.

Apologies were received from Profs. Williams and Walley, and Messrs. Faulkner, Longhurst and Cooper.

The Hon. Secretary said the next business was to consider and decide upon what steps should be taken by the Society with regard to the election of the Council of the Royal College. He read the names of the members of the present Council and explained that three years ago steps were taken for co-operation in the matter with the Lancashire, the Border Counties, the North Yorkshire and the Midland. Were they, of this Yorkshire Society, he asked, for this purpose going to again amalgamate as they did on the last occasion? He had every reason to believe that at all events the Border Counties and the North Yorkshire would take action along with themselves, and as to the Lancashire he was most happy to find that his old friend and "chum" at College, Mr. Woods, of Wigan, was in attendance and he would, no doubt, enlighten them on that point.

Mr. Woods said the Lancashire Society were not intending to make a nomination to the Council of the Royal College this year. They had agreed to support the nomination of Mr. Trigger, of the Midland Veterinary Society—(hear, hear)—and he knew that it was the desire of many of his (Mr. Woods') colleagues in Lancashire that if Mr. Mason were again brought out by the Yorkshire Society as a candidate that they of Lancashire should give him their support. (Applause.)

The Hon. Secretary: The Midland, I understand, are agreeable to amalgamate with you, Mr. Woods?

Mr. Woods: We have assured them that we shall be pleased to support their nomination.

The Hon. Sec. then, on the suggestion of Professor Pritchard, proposed that Mr. Mason, their president, be proposed for a seat on the Council of the Royal College.

Mr. Briggs seconded it, saying that it was important that a society embracing such a large area as the County of York, should have a direct representation on the Council, and that no endeavour should be spared to ensure Mr. Mason's re-election. He also felt it desirable that they should be in sympathy as to this election with the Border Counties, the Lancashire, and the Midland organisations. From every point of view this was exceedingly desirable, and as to Mr. Trigger, the nominee of the Midland Society, they all knew very well as a most efficient and distinquished representative of the profession. (Hear, hear.)

Mr. G. Bowman having supported the proposition it was adopted unanimously.

The Chairman returned thanks for this initiatory step having been taken towards again letting him represent this Society on the Council. He did not feel disposed to enlarge upon anything he had done in that capacity in the past. He would remark, however, that according to the rules he should have had another year of office to run, but owing to some clever lawyer's ruling he had at once to retire although when elected he had received a larger number of votes than Mr. Nisbett. He did not want to grumble at the law, if that was the law, but he thought it was an extraordinary way of showing what influence a majority of votes should have. (Hear, hear.) He did not know that while he had been on the Council any magnificent reforms had been accomplished, but the action of the Council as a working body would have been more to the point if there had not been so much waste of time through a superfluity of talking. Most of the real work, however, was done in committee, and when that was over then the talkers could indulge themselves to the utmost of their capacity. (Laughter.) If at the forthcoming election he should again have the

honour conferred upon him he could only promise that as during the last three years he had done, he would give the most anxious attention to the business coming up for consideration and he would never give a vote which his conscience did not dictate to him that it was right he should give. He thought on the Council there should be representatives from certain divisions or from the Counties, and moreover he thought, and felt it very strongly, that a member of the Council should get more direct communication than he did with those whom he represented. He should like more frequently to be asked such questions as "What have you done?" "Why have you not done it?" and "Would you like me to tell you what I think your Council should do?" Nevertheless, as far as their constituents approached them with reference to any proposal, the Council he could answer for that they would to the best of their ability elevate the profession to the dignified standard all belonging to it in Yorkshire wished it to attain. (Applause.) But again he would say to those gentlemen who were so ready with their "Why do you not do this, that and the other?"—to those anxious and zealous inquirers he would reply *Why don't you initiate it?* He thought the veterinary societies should be the nuclei for teaching their representatives what they ought to do. If that were the practice then depend upon it the representatives would do their best to carry it through. (Hear, hear.) The Council would soon put things on a proper footing when anything which needed amendment was pointed out to them. He sincerely hoped, and emphatically begged, that if he should be successful at the next election they would never lose an opportunity of acquainting him with their ideas on professional or scientific matters which from time to time needed rearrangement or rectification. He approved of the proposal to combine with the other societies which had been named for the purpose of electing representatives to the Council. That gentleman proposed by the Midland Society he hoped they would support, for a harder-working man there was not in the profession. (Applause.) He was a sound business man, and a straightforward fellow who wanted to get at the bottom of everything, and would see that he got it before he decided what to do. He certainly was one of the rising members of the Council, and he (the President) should be happy if the proposed amalgamation with the Midland and the other Medical Societies which had been named should now be confirmed.

This was done at once on the motion of Mr. Fletcher, seconded by Mr. Somers.

The CHAIRMAN: Gentlemen, I am sure there is no member of our profession who would receive from you a heartier greeting than my old friend on my right—Professor Pritchard. (Cheers.) He has made a long journey in order to meet you and to discuss with you one or two of the burning questions which are of absorbing interest to the profession, and I am sure you will give him all the respectful attention which one of the most distinguished men belonging to us is entitled to receive not only in Yorkshire but anywhere else within the Queen's dominions. (Cheers.)

"ON DOCKING AND DISHORNING."

An Address by PROF. PRITCHARD.

Professor PRITCHARD on rising had a rather boisterous welcome. Mr. President and Gentlemen,—When my old friend your chairman wrote to me and asked me to come and say something or other to this Yorkshire Veterinary Medical Society it took time to consider what really I should talk to you about. But after a time I thought to myself "Well, down in Yorkshire they like something to fight about as they do in the county I come from, Staffordshire, and as I know that the questions of docking and dishorning admit each of them of a considerable amount of discussion I selected them in preference to any scientific matter, or any other topic which probably would not allow of an instructive discussion. I am not going to talk long on either docking or dishorning, but will say what I think will be sufficient to evoke what the other night was designated by a distinguished statesman to be "a bombardment of questions." You all know very well that these are matters I have not recently had to deal with. But that matters not, because in my time I have had to appear as a witness in courts in both England, Ireland, and Scotland, and on those occasions have heard arguments advanced in opposition to what I shall now lay before you, but I still I assure you remain unconvinced that my ideas and notions on these too subjects are incorrect. (Hear, hear.) But I want this afternoon if I can to draw you out, and I am honestly asking you to do something which if it does not absolutely convince me will, at all events, do something towards convincing me that what I have hitherto advanced as my convictions on these subjects are not correct. I will deal first with docking. The Professor then compared the ordinary mode of docking horse's tails now with the more barbarous methods of former times, and then he remarked that it was as well known to those whom he was addressing as to himself that there was no necessity for the use of the hot iron in the operation. There were modes of docking horses in vogue which could not under any pretence be called scientific operations. How many horses were there docked but not docked by veterinary surgeons? He should think if the statistics could be put on paper it would appear that for one horse so operated upon by a veterinary surgeon there were from 50 to 75 docked by horse-dealers in a rude and cruel fashion, which he described, and which he said was happening every day and probably in every part of Great Britain and Ireland, and in other parts of her Majesty's dominions. But he asked, was there any necessity at all for the docking? He would not admit it. There were excuses made for this operation, but he contended that it was not necessary. Probably the objection most frequently advanced was that harness horses are liable, if they have not been docked, to get their tails over the reins and consequently there was sure almost to be a kicking exhibition when probably the trap, if not also the life of the driver, would be liable to a certain amount of danger. His reply to that was that every horse, whether docked or not, was liable to get his tail over the reins, and if he did, depend upon it he was very much more likely to get it back into its proper place if he had not been docked. This was one point which he threw out for discussion. He (the Professor) was not in the habit of advancing arguments without giving reasons for them. He might remind his hearers that the tail was more of a tapering form than a man's finger and the smaller the extent to which it was docked the more flexible was it, and the more capable was the animal of using it. He wanted attention to this point particularly—that the animal has fuller control of the tail if undocked, and if a skilful driver met with an awkward circumstance of the kind in question the horse would be found to bring his tail right again with but little assistance. But if a horse had lost the more flexible part of this tail there was greater difficulty for the animal to get his tail back to its proper place. Beyond that, if the animal had been docked he never forget it. Horses had as good memories as their masters, and when once the tail has been interfered with, when a horse finds he has got his tail over the reins the driver would find more trouble with it than if the horse had not been docked.

It was an undeniable fact that the finest horses in the world were never touched in that way. The American trotting horses were never docked. Someone might be

inclined to say "When you mention America do you include Canada?" He must admit that in Canada some kinds of horses were docked, but those were only horses intended for the European markets. But to take the finest harness horses in the world, the American, they were never docked. With regard to getting the tail over the reins, the American driver sitting low in his buggy, below the level of the horse's tail, drives away without the slightest fear of any danger through entanglement of the reins and the horse's long tail. Another point was that the horses docked shorter than any other in the country were not harness horses, but hunters. The reason for that might be that the horse should not fling his tail about to such an extent that it should not lash the rider's shoulders, or otherwise make the man in the saddle fancy there was something wrong with his mount. Was that to be a sample of why other horses' tails should be dealt with in the same way? Another remark he (the professor) would make was that the winners of the Grand National Steeplechases were not docked horses, and another point he would use in defence of the position he took up was that our own racehorses none of them were docked. They dare not dock them, and why? Because the owners and trainers knew the racehorse could not get round the corners if they did that. Now another, which he thought was a most clinching argument, was this—did not veterinary surgeons think that Nature knew how the horse's tail should be made? Did anyone think that man was a better manufacturer than Nature in regard of that? If it was necessary that horses should be without tails, or have one only six inches long or so, did not they think that Nature would have made them in that way? Another matter he would mention was that many horses were made to have ugly tails by docking. He had known hundreds of horses himself, and it had come within his experience as no doubt it had in that of many other people, that horses had been so docked that they were made to carry their tails on one side or in some ugly position or another. Where came in the benefit there? Had not they in driving along the streets observed from time to time cases in which horses had been exposed in such a way by docking that it was absolutely disgraceful.

And there were reasons for not being docked besides those which he had mentioned. Tetanus often was the result of the operation. In Devonshire no less than 20 horses had died in one month from tetanus brought on by docking.

Now, he thought on this matter of docking he had said quite sufficient to raise an argument, and he would pass on to the subject of dishorning. Growing from the frontal line of the horned animal, the ox, there was a stratification of bone, and covering that a quantity of horn, and below that covering of the horn on the surface of the bone there was found a layer of material as sensitive and vascular as the skin that covers the animal's body. The finest pointed needle ever made could not be introduced into the human skin, or into the skin of the ox, without rupturing blood vessels. Elsewhere in the same region were other vascular conditions, and wherever these vessels go the sensitive nerves go with them, and there was just as much sensitive matter in the inside of the ox's horn as there was inside a human creature's finger nail. There was, of course, horns and horns. There was the horn which grew from the head of the common deer, which grows from the crown on the head and so soon as it has left the crown it becomes insensitive. The rein-deer possessed another kind of horn the peculiarity of which the professor technically explained. This as also contradistinguished from the bovine horn was also elucidated, and specimens of the latter were produced in a condition to show out of what highly sensitive material the horn of the ox grows. Now the operation described as dishorning simply amounted to sawing off the whole of that particular structure close to the head of the beast. The animal was placed between the shafts of a cart or between strong posts and a saw was used for sawing off the horn. Another way was to remove the horn by the use of a pair of pinchers made for the purpose. Now, he would ask anyone who had any idea of what was painful whether that must not be attended with a considerable amount of pain. Fancy, he said, taking the fine skin and cutting through it as you would do if you were cutting through your finger nails. Now what were the excuses made for these brutal performances? One, and that the most frequently advanced, was that then there could be put into a certain space a larger number of beasts. Another plea for the practice was that cattle when dishorned could not gore one another—a way by which many of their lives had been lost. As far as the latter was concerned he was willing to admit that under certain circumstances animals had been gored as a consequence of having long horns. But those cases were exceptions to the rule. In some parts of the country where large numbers of beasts were kept together the dishorning process was resorted to because the creatures could then be kept together where space was limited without doing injury to one author. Was there any justification for committing these base cruelties in order to prevent any accident happening? He asserted that it was very cruel, and there was no justification for it. If it was needful that dishorning should be done let those upon whom it devolved try if they could not approach the subject from some other standpoint. For the purpose of assisting in this being done the professor quoted some remarks from a publication called *The Farm, The Field, and The Fireside*. The gist of which were "that if a young animal was taken when its horns were first appearing, with a sharp knife the core of the horn were nipped off it would not afterwards grow, and the operation was only like the vaccination of a child—just about the same, and associated with no more pain." He had been in hopes that he should have a diagram to illustrate this really merciful plan, but he had been disappointed of it. It would especially have explained a mode of destroying by chemical means the horn buttons.

Professor Pritchard in the next place referred to special cases of cruelty to animals which had been before the courts, and he produced and read very copiously from an authorised report of the case before the Lord Chief Justice and Mr. Justice Hawkins on the 12th of April, 1889, in which cruelty was alleged to 32 oxen by Mr. Jeremiah Cozens Willey, farmer, Little Plumstead, and three of his servants in dishorning those cattle on the 8th and 15th of October, 1888. The magistrates had dismissed the charges and the Society for the Prevention of Cruelty to Animals appealed to the High Court.

In conclusion Prof. Pritchard said—Now, gentlemen, I have detained you longer than I desired to do. Many other points in connection with these subjects I should like to have entered into, but I am looking forward to the discussion which is to follow and which may take up some time, and I will sit down after thanking you very much for the patience with which you have listened to me. (Loud applause.)

Discussion.

The Chairman: Gentlemen, on your behalf and my own, I beg to thank Professor Pritchard very sincerely for his most interesting address on two really important subjects—an address delivered in a way which, to those who have been accustomed to hear him, is always lucid and exhaustive. He has brought before us arguments and facts which call for deep thought on the part of those who would wish to profit by them no doubt, and consequently there will be many questions to be asked.

Probably he has been asked the same questions over and over again, but the replies he will feel it his duty to make now will, I have no doubt, meet with the most grateful acceptance by you. (Applause). I shall not defend all the views the professor has enunciated, but before I give place to some of the controversialists I see before me, I again thank him for coming on a visit to our Yorkshire Society and giving us this interesting lecture. The professor has denounced certain barbarous modes of docking horses, but when we put ourselves in competition with uninitiated and unqualified farriers do we score. Although we may not agree with the professor on all points as regards docking, I think it must be admitted that if you have an animal undocked you can manipulate the tail with greater ease than if it be docked. If you get a thoroughbred or any horse in the mutilated state, you may calculate that he has been deprived of a vast amount of power, and depend upon it, if you get an animal which has not been mutilated you can pass your thermometer in taking temperature with greater ease and certainty with the leverage of the long tail. When the professor was speaking, I could not help admitting in my own mind that I had seen horses in a wild or semi-wild state who could most rapidly get round corners. The long tail for them acts as counterpoise, and I do not think you would take a greyhound to be very likely to be clever in doubling his hare if he had not the benefit of his tail. As to the American trotting horses, I agree that they are the finest in the world, and they never have their tails docked, and the driver sits right beneath them quite at his ease; but I must confess that I should not like a gallop over strong farm land on a hunter with a long tail. As to dishorning cattle, obviously it is a most cruel operation unless performed at an early age, and it is only done at all when it is a question of £ s. d.; but probably that branch of the professor's discourse will be freely discussed.

Mr. Briggs (Halifax) said he had great pleasure in confirming what the chairman had said with regard to Professor Pritchard's kindness in coming there to give them his views on these debateable subjects. It was not, however, the first time that he had listened to similar views expressed by the same lips, but he would now ask what would be thought if a hackney made its appearance in a show ring with an undocked tail. He did not agree with all that was said about the vast superiority of the American over all other horses. He contended that the Yorkshire hackneys were the finest harness horses of the day, and fetched more money than any other class of horse. Docking a horse was not, if properly done, attended with as much cruelty as some other operations the commercial necessity for which was admitted. As to the free and-easy style of the American driver in his sulky, why people at home did the same frequently, whether the horse was docked or not. The professor, he (Mr. Briggs) could not help noticing did not denounce docking for its cruelty so much as he did dishorning. A horse might be docked and then place before him his feed of corn and after stopping for perhaps a minute he would go on with his provender. If he could believe that the operation should be regarded as a cruel one he should be one of the first to say "do away with it," but the infliction of pain did not by any means always amount to cruelty; and in this operation of docking there was a reasonable object in view, namely to enhance and augment the commercial value of the horse. Polo horses he would instance as having given to them by the shortness of their tails greater facilities for the rapidity of turning and other movements in connection with that sport—turnings and manœuvres as sharp and more frequent than any which were demanded in the case of a racehorse. As to the dishorning of cattle, he knew but little about it, but he had read the pamphlet entitled, "Is the Irish practice of dishorning cattle an act of cruelty," a few copies of which Professor Pritchard had brought with him, and he was of opinion that the operation as therein depicted was altogether a barbarous one.

Mr. Fletcher, (Sheffield), after expressing his own individual thanks to Professor Pritchard, said in Yorkshire a good deal of the docking of horses was done, and so far as he knew neither magistrates nor judges had interfered to prevent it. In any operation a surgeon had to perform there must be a certain amount of pain attendant upon it, unless indeed the horse was placed under the influence of chloroform, but this operation was one quickly over in any case, and the pain but slight if the operator knew his business. Of course in the hands of a bungler there would be cruelty inflicted, no doubt. The value of the animal was much increased by the operation and all horse-dealers and breeders in Yorkshire thought so. As to the horse getting his tail over the reins (Mr. Fletcher's) experience was that it took longer to recover the rein in the case of a horse with a long tail than in that of a horse which had been docked, and the difficulty was all the greater were the rein a short one. He had never met with any serious accident from that cause. As to the comparison with American horses he thought it was almost ridiculous to see a man sitting behind the American trotter with one rein spread out on one side and the other rein as widely extended out on the other; it was scarcely the manner in which any English gentlemen would allow himself to be seen driving his horses. Then, as to Nature having provided a horse with a long tail according to the eternal fitness of things, was it not the fact that Nature sent mankind into the world unclothed, but where were we now in that repect at the present time. (Laughter). The argument that Nature having made us unclothed, there should, therefore, be no departure from it, was as reasonable as saying that Nature did not dock horses, nor provide that they should go about their work with shoes on. He thought it was quite wide of the mark to make any strong point against certain things being done because Nature did not seem to have wanted them. With reference to the objection that docking sometimes caused horses to carry their tails lop-sided, why when he was a pupil hundreds of horses had to be docked simply because they naturally carried their tails awkwardly and in an unsightly way. That was a *quid pro quo*, he thought, for those who alleged that docking often caused that which in other cases the operation of docking was resorted to to cure. As to tetanus often being the result of docking, he could plainly assert, after having in his long experience docked many horses, that he never had had a case of tetanus as the consequence of it; and he would warrant to say that all the gentlemen in that room could not bring forth 50 cases of tetanus produced in that way in their experience even including cases done by people outside of the profession. Again, if this operation could be performed without risk he thought great perfection must have been attained in it. There were certainly different methods of doing it, and the man who thought he knew best how to do it with the least pain and in the quickest manner should offer his advice to others; and as to saying that veterinary surgeons set themselves up to fight against the Society for the Prevention of Cruelty, why that ought to be protested against vehemently, because it was well known that in Yorkshire, at all events, they were too proud of their horses to do them any harm. On the subject of the dishorning of cattle he would not enter upon it for he did not know much about it; but he at all events hoped it would not be made to appear that they in Yorkshire were dead against docking horses.

Mr. Cooke (Scarboro') said he, like all others present, had listened with much pleasure to the Professor's treatise on the two subjects which he had selected for

that day's discussion, but he should have been glad if there had been the same opportunity for exposing the rascally cruelty of withdrawing horse's teeth for the purpose of defrauding a purchaser and misleading the veterinary surgeon. He never had been an advocate for the indiscriminate docking of horses, but under the existing state of things they had to perform the operation when required to do so, and if they refused on sentimental or any grounds undoubtedly the practice which they had got together would be damaged. Having briefly described his own method mechanically and medicinally, Mr. Cooke added that it was well-known that among horse-dealers 80 per cent of the docking was done by themselves or their grooms. He did concur in the idea that a horse would carry his tail better if after the operation it was seared with a hot iron. Of dishorning cattle he had no practical knowledge and never should wish to have.

Mr. BOWMAN (Leeds) said he had greatly enjoyed the Professor's learned and elaborate address, but he was sorry to say that he did not agree with the views therein expressed respecting docking. One reason why he (Mr. Bowman) approved of docking was because it improved the looks of a horse, and unless you were in the fashion you might as well be nowhere. He disagreed, too, with the Professor as to the inferiority of undocked harness horses over those which were docked. With regard to docking racehorses that no doubt was very rarely done, but he had known it done occasionally in some stables. "Old Joe" once the winner of the Grand National Steeple Chase, was a horse which had been docked.

A Voice: And so was "Recruit."

Professor PRITCHARD:—"Old Joe" did not win the Grand National.

Mr. SCRIVEN:—Yes, and he beat "Gamecock."

Mr. BOWMAN added that he did not approve of the searing portion of the operation of docking.

Mr. WOODS (Wigan) said he should not like regularly to ride a hunter or to drive a harness horse unless he were docked. Professor Pritchard had rather sneeringly alluded to the practice of docking hunters and he had said in effect that there was no possible justification for it. He (Mr. Woods) did not know whether there were any hunting men present who had ever found themselves jammed in a narrow lane with the long tails of some of the hunters whisking unpleasantly about their neighbourhood, such a thing might even lead to a catastrophe which might have been prevented, and if by docking all the horses that ever were born one human life could be saved it ought to be done. Of course, docking caused pain but if pain was to be the criterion operations must be abolished altogether. But the amount of sensibility at the end of a horse's tail was not very great; he had pricked a docked horse with a pin without the animal desiring to get the tail out of his hands. If a horse had a disease at the end of his tail and it was docked for that reason it would be found that the tail was only possessed of a low degree of vitality. Although the theory of non-docking might be good, let them not exaggerate respecting it. That a long tail was not so likely to get over the reins as a short stump was not his opinion. The danger commenced after the tail had got over the rein. Then the horse had made his grip tightly if he had tail enough to do it with, and he would go on trotting, but how to get that tail from under the rein was the question. Now, would that be more difficult to do with a long tail or with one docked to within 10 or 12 inches. That would he thought make all the difference between safety and an accident, and that led him to the conclusion that harness horses should be docked. They had been told that the horse never forgot the operation, but he (Mr. Woods) was of opinion that no psychological research would ever ascertain what was going on in the mind of a horse. He had driven docked horses and he had never seen anything which led him to suppose that the animal was thinking about the time when he was docked. Racehorses it was urged were not docked, and when in Manchester some time ago Professor Pritchard gave us the reason that the horse could not otherwise sweep away any cause of irritability on his quarters. The reason now given was that the racehorse could not turn as well.

Professor PRITCHARD:—The reason I gave then I do not know. What I have said to-day is perhaps an addition to it. What I say is that the horse cannot turn round the corners without his tail as well as with. What I may have said probably was that a docked horse's quarters were not supplied with the switch which was natural to him.

Mr. WOODS said still there was the contention that a racehorse could not get round the turns if docked. Now he happened to be at Newmarket shortly after the Professor's visit to Manchester, and he met a gentleman there who was very high up in the training world, and when he was informed of the Professor's objection to docking he exclaimed "What rot, you can cut a horse's tail off altogether if you will and I will train him." That eminent Newmarket trainer thought there was nothing in it whatever. But in the same room at the hotel there was a trainer from Turin, and he said "There is a mare now running in Hungary and she has a docked tail and she won two races last week." It was moreover said that the tail greatly assisted in steering the animal, and the Chairman had illustrated by his observation of what horses in a wild state could do. But had not the hare to do a good deal of clever and rapid turning? and what a small allowance of tail she had. The fact was that all the rodentia should turn quickly and they were as nearly as possible without tails, so that that should dispose of the argument that tails were necessary as steering gear. Then, they had also been told that Nature had never done anything in vain, and if Nature had not intended the tail to do certain work it would not have been there. But of what value was the tail Nature had endowed the pig with? Why did Nature allow it to rot off sometimes? The argument that Nature never did anything in vain he thought would scarcely do. Undoubtedly docking should be performed in the best way, and studious care should be taken not to add to the pain so as not to make it cruelty. The undocked American trotting horses and the way in which they were driven had been alluded to, but the way in which that driving was done was such as no gentleman would think of adopting in this country. He (Mr. Woods) had himself seen the thing to perfection in America, and he should be sorry to see that ridiculous style adopted in this country. With reference to the other operation of dishorning cattle he thought it was a question which required experience before anyone could be capable of giving an opinion respecting it. In the district where he came from dishorning was not necessary.

Mr. SCRIVEN speaking on the subject of docking said the horse had been provided for man's use, and if they were not allowed to dock him he very often would not do them much credit. He had practised docking for 30 years and had not had any mishaps, and while he was at work he could stand beside the animal without any fear of being kicked. He told what was his habitual *modus operandi*, and as for the tails being more flexible when undocked, certainly there was then more danger of the tail whipping round the reins, and there would be all the more difficulty in getting detached again. Trotting horses and racehorses were trained to get out of the road of the muck as soon as they could, but as to getting round corners why the guinea-pig could nip round a corner very smartly and he had no tail at all. He had docked hundreds of horses and never had had a case in his life of tetanus in consequence of it. As to the dishorning

of cattle he never was called upon to do it, but if it came within his practice he should recommend that it be done very early and then he thought it would be more effectually done too.

Mr. DEIGHTON said that racehorses were always among grass, but when a hunter on a harness horse had been among the sludge and was brought home dirty, if his long tail had been draggled in it he would have to be washed down with cold water and that must make him uncomfortable for the night. Another thing was that although lambs naturally had long tails it was necessary to dock them or they would breed maggots and lots of things; besides that it had to be done for commercial purposes.

Mr. SOMERS, while acknowledging the indebtedness they were under to the professor said he could not help protesting that the use of the hot iron in connection with docking was unjustifiable and cruel.

Professor Pritchard replied upon the discussion, which he said he was much gratified with, and he would now answer the remarks which had been made *seriatim*. Mr. Briggs had spoken of the fashion of docking horses adding to the commercial value of them. He (Professor Pritchard did not for one moment attempt to deny it, but were they justified in committing a cruel act in order to increase the value of the horse. He should like to say "no," but he must tell them that it was illegal to dock horses; let them not forget that. If they were caught doing it they were liable to the law, and therefore it was a matter for consideration whether they should support what was the fashion or submit to the law which was contrary to it. It was only in certain districts or counties that docking took place. They docked them in Germany and Canada, but it was only done to horses intended for English markets. He was once talking to a Russian noblemen when he said "What is the meaning that you cut off your horse's tails." The fact was that the English were by themselves to a considerable extent in allowing and encouraging this operation. He did not believe there was anyone in that room who conscientiously believed it was not cruel; the operation could not be performed without inflicting pain. The question had been raised about lambs, but the end did then justify the means. Sheep could not be raised without docking the tails in some parts of the country, but going to where the sheep were found in their natural or normal condition and there was no necessity for it. In Cumberland, on the Welsh Hills, and in Scotland they did not do it. The flocks pastured over extensive regions where the tails could pick up no filth, as they were liable to do in more populous districts, and where for preservation from disease it was necessary to perform this operation. —A Voice: I have never seen sheep troubled with flies, maggots, or anything of that sort in Cumberland.—Prof. Pritchard: Have you ever seen a sheep with its tail off there?—I cannot say. Professor Pritchard went on to say that he must confess he had been surprised with what had been said respecting polo horses. It was an undoubted fact that owners of polo ponies were now growing the tails on their ponies, and that the ponies with long tails were proving the winners. It had rather amused him to hear what had been said about that. Mr. Fletcher had said that the operation of docking was quickly over. He (the professor) did not think that the operation itself had so much to do with cruelty as the healing process; there were instances in which the healing went on quickly but in other cases it took longer, and during that time it was a most painful experience. As to tetanus some one had said all the people in that room would not have seen 50 cases, but it was admitted that some had arisen, and he himself had seen some but they had not been in cases of his own.

Mr. SCRIVEN: The presumption must be that when tetanus comes on the operation has been badly performed and with dirty instruments.

Mr. FLETCHER: Do you think, Professor Pritchard, that an animal after the operation would feed well if he was in great pain? If he was suffering very much from the effects of docking?

Professor PRITCHARD replied that pain as a rule did not create a loss of appetite. An allusion had been made to the drawing of teeth. He remembered the last time he was in that room addressing an audience of Yorkshire veterinary surgeons something was said by him about a Yorkshire mouth, and he was told that he ought to have said an Irish mouth. However it must be admitted that it certainly was a cruel thing to prematurely draw the teeth. (A Voice: It's a fraud). Professor Pritchard admitted that it was intended to be a fraud, but there was always the difficulty of bringing it home to the guilty party. The docking of foals early had been advocated, and if he admitted for a moment that it was right or that there was a shadow of a right in the docking operation, he would admit that it should be done when the colts were running out. But there was this about it, that if you docked the tail when very young it could not be foreseen what sort of a tail after all that animal would grow. Nevertheless, if it was to be done let is be done soon, but he was so much in earnest about it that he would repeat that there was not the shadow of an excuse for its being done. Mr. Woods had made remarks about horses whisking their tails over the reins, or in a narrow lane crowded with hunters. Now, he (the professor) was not advocating that horses should go a-hunting with tails a yard long. That might be obviated by shortening the hairs, and it was the docking that he was talking about and not the hair on a horse's tail. Mr. Woods had observed that the skin at the end of the tail was not very sensitive.

Mr. WOODS:—I have tried it to be so.

Professor PRITCHARD said he did not know why that should be so, because the nerves there were as numerous as in any other part of the body, but after all that was a matter of opinion. Mr. Woods had given some hearsay testimony to the effect that racehorses could go as well with short tails as with long. Now he (The Professor) had great respect for the eminent trainer at Newmarket of whom Mr. Woods had spoken, and he was much surprised that that remark had been made which Mr. Woods had quoted, and he must take it upon himself to say that he thoroughly disagreed with it, and he thought trainers generally would do so or there would be more cases of docking in the training stables than there were. In speaking about the rodentia Mr. Woods seemed to have forgotten about the mouse and the rat. What was the secret of the hare baffling his pursuers without the aid of much tail but that his hind legs were greatly disproportionate with the length of his forelegs, and they gave him a fulcrum as Nature intended, and made him independent of the tail. In the case of the flea nature had provided it with the means of jumping a long distance at one bound, which means were found in the length of the hind quarter. This was why showmen taught them to go through certain performances which seemed extraordinary to those who had not calculated what power there was in the hind limbs of a flea. In conclusion Professor Pritchard said I am glad that I have been the means of eliciting so important a discussion. I have been at such meetings as this when little or nothing has been said in the way of argument, but when I was asked to come down here by my friend the Chairman I almost stipulated that there should be a strong debate on the subject matter of my observation.

The CHAIRMAN:—Gentlemen, you have heard Professor Pritchard's reply and as I am sure you desire to express a hearty vote of thanks to him I beg to propose it.

Mr. ROBINSON seconded it, Mr. SOMERS supported it and it was carried unanimously.

Professor PRITCHARD:—Gentlemen, as Shakespeare says "I am poor in thanks," but I thank you.

A telegram had been received from Mr. Baxter, Secretary of the Farriers' Company in London. Probably the gentlemen present, the Professor said, would be aware that they were establishing an examinasion for the Registration of Farriers, and the telegram asked him whether an arrangement could be made for such an examination to take place in Leeds. He thought it was very advisable that Farriers should be registered, and that under the wing of the Farriers Company, and this meeting might have sufficient influence to get such an examination to be held in Leeds.

On the motion of Mr. BOWMAN, a committee was formed for this purpose consisting of Messrs. Briggs, Scriven, Somers and McCarmick.

A vote of thanks to the Chairman terminated the proceedings.

THE CENTRAL VETERINARY MEDICAL SOCIETY.

(Continued from page 659.)

DISCUSSION

(On the address on "The Less Noticed Evils of Shoeing," by W. Hunting, F.R.C.V.S.)

Mr. S. VILLAR remarked that Mr. Hunting told them that a large proportion of cases of bent knees resulted from bad shoeing, and he also went on to infer that as a consequence of those bent knees they had ringbone. The question occurred to him (Mr. Villar) whether bent knee did not follow upon a disease of the coronet bone of the foot. He did not see why it should not result from that as from bad shoeing. He took it that the deposits which formed in ringbone were the effects of disease previously existing in the bone itself. Mr. Hunting also told them that only empirical ideas of the alteration of shoes were at present in force to prevent cutting. It occurred to him (Mr. Villar) that the only way to prevent cutting, that was, he took it, the striking of one leg with the opposite shoe, was to watch the action and peculiarities of individual horses; and the ideas and rules for the prevention of cutting must necessarily be of an empirical or rule of thumb character. Mr. Hunting said he would not pare the horn if there was not suppuration going on. In this he differed from Mr. Hunting. The horn at parts if allowed to grow would get very hard, as hard almost as the iron of the shoe itself. If it were allowed to increase abnormally or get very large it would cause pressure at the seat of corn, and this horn pressure at the seat of corn itself produced corn. His idea was that whenever there was extravasation of blood at the seat of corn, the right thing to do was to remove as much horn as possible, that was without unduly interfering with the sole or the heel. He thought it was the right thing to remove the portion of the sole which was between the wall and the bars. He had noticed on very many occasions that horses which came down to his locality from London suffered, to his mind, rather more from want of removal of horn than from having too much horn removed. Many a horse that came from town into the country, which was sold and had to work on the country roads, went—as Mr. Hunting called it—"shovey." He had frequently found that their heels had been allowed to grow abnormally long. He did not know why this should be so, but his belief was that the farrier probably did not wish to spend much time over a foot, and hence failed to remove horn that ought to have been removed. Coming from the hard stone roads of London on to macadamised country roads had, he believed, a very beneficial effect on the horses, but he also thought they had received great benefit from the fact of their heels being lowered when they arrived in the country. With respect to the phrase used that a horse's shoes were "too tight," that expression might convey different ideas to different persons. His idea in speaking of a shoe being "too tight" was that the nails which were used, from some cause or other—either through their being too big or driven too closely—allowed the inner surface of the horn of the foot to press upon the sensitive parts. That, he took it, was the meaning of a shoe being "too tight," not that the shoe itself was too tightly fitted, but that the nails were too tight or too close to the sensitive structures. Mr. Hunting did not think much of the circumferential surface of the shoe. As regarded the front Mr. Villar did not think this made a great deal of difference, but behind (on the inside especially) if the shoe were allowed to protrude over the wall of the foot at the quarters and the toe, it was quite certain that a horse would brush badly, or bruise his fetlocks with his shoes. In conclusion Mr. Villar thanked Mr. Hunting for his able address. (Applause.)

Mr. A. L. BUTTERS alluding to the reference of Mr. Hunting to the bright groove noticed at the heels of shoes when they were removed in cases of lameness, said it had frequently been remarked that the brightness was the result of pressure. This brightness occurred most frequently where the shoes were what was called "sprung at the heels," and the general method of reasoning was that this bright groove was indicative of too much pressure. His opinion was that the bright groove showed not continuous but intermittent pressure. If they looked at a shoe loose when it came off they would find that it was bright exactly in the same way. They also knew that by the motion of the horn it was brightened in the same way. He quite agreed with Mr. Hunting that shoes should not be sprung at the heel but have a level bearing. Where shoes were so sprung there was too much play which resulted in much lameness. It was not often that the matter of a bright groove at the heels was brought forward. He thanked Mr. Hunting for his interesting address. (Applause.)

Mr. W. ROOTS said that when he was a student one of the fundamental principles of fitting a shoe to a horse's foot was that there should be allowed a considerable distance between the shoe and the heel of the foot. He took it that the brightness referred to was due to the fact that there was not sufficient space between the heel of the shoe and the foot, that was to say, when the horse put his foot on the ground there was only just sufficient space for the foot to reach the shoe in a downward movement. He was a firm advocate for having a great deal of space between the shoes and the ends of the feet, and he could assure Mr. Hunting, who was a practical man, that since he had adopted the principle taught him at College of allowing a great deal of space between the heel of the foot and the shoe, he had had very few cases of corns, very few indeed.

Mr. A. ROGERSON said he should like Mr. Hunting to explain to them the appearance of the bones of the feet which he had examined, as he (Mr. Rogerson) had boiled a good many feet down and examined the bones very carefully without detecting anything very definite. He quite agreed with Mr. Hunting as to the preparation of the feet, that they should be fairly well cut out, and shortened at the toe and heel as occasion required. As to "cutting," Mr. Hunting seemed to lose sight of the fact that that depended a great deal upon the way in which they worked their horses. He frequently found that a young horse put to work in double harness brushed himself. That, however, was not the fault of the shoe but the way in which the animal went. He showed a sort of side angle, and he brushed himself a good deal when he was placed on that particular side.

As soon as he was changed to the other side or put in single harness the brushing ceased. He concurred with Mr. Villar as to the wisdom of cutting out the heels for corn. This must be done in the case of the heavier class of horses. It might not apply so much to gentlemen's carriage horses. With heavy horses if the feet clubbed and the shoes became twisted and extravasation ensued, cutting down and tracing it to the very bottom was the course he pursued. Mr. Hunting, he though, was rather inclined to discredit the old seated shoe, but his (Mr. Rogerson's) experience was that the seated shoe was far preferable to, and answered much better than the plain shoe. In many cases he found that horses did not last so long with the level shoe, if they set the seated shoe out a bit, say half way across, and allowed sufficient bearing both for the crust and the sole. It must be seated a bit, in his opinion, so as to keep it off the sole as much as possible. Mr. Hunting alluded to the heel of the shoe being altered in some way and he (Mr. Rogerson) thought he might illustrate this by a reference to roughing. They would find that many horses after they were roughed got terribly lame from the pressure brought to bear upon the heel by roughing Have such a horse to the forge and the roughs removed, and he would emerge perfectly sound and remain so. As to "tight shoes," Mr. Rogerson considered that Mr. Villar had explained the meaning of that phrase fairly well. It was not unfrequently found in removing a shoe that was too tightly on that the nail was buckled a bit, and hence pressure was brought to bear upon the deeper seated structures of the foot with resultant lameness. Mr. Hunting's remarks, he believed, were confined to London shoeing. He should have liked him to have referred to Provincial shoeing as well. In the country they had all varieties of shoeing: high heels, high toes, and some very wide heels projecting out goodness knows how far, at the back part of the shoes. Those shoes would not answer at all in London. They must apparently adapt their shoes to particular character of the streets in which the horses were required to work. Let them take Sheffield for example. If they went there they might be amazed at the ugly shoes with which horses were shod in that hilly town. If they suggested an alteration they would be told that the horses could not ascend and decend the steep streets if their shoes had not high toe pieces and high calkins. Of course horses in Sheffield went at a walking pace, and were not required to go at the fire engine speed that was common in London.

Mr. F. G. Samson said that his idea of shoeing was that they could not lay down any definite rule for shoeing a number of horses. Horses' feet varied as man's foot varied. Each had its peculiarities and required to be shod accordingiy. As to leaving a space between the shoe and the heel if he came across a horse with a strong foot and with good heels he considered such a horse could be shod from the outline of the wall right round inside the shoe and close to the heel, and no ill effects would result. He did not think they would thereby produce corn in a horse of that class. If, on the other hand, they had a horse with low heels and flat feet to deal with, care was required not to shoe him too close to the heels. As regarded the seated shoe much the same remark would apply to a horse with flat, low, big feet, particularly as concerned the sole. If they had a flat, low, weak sole to deal with they must suit their shoe to the foot in order to get the horse to go well, and they must shoe him wide. He quite agreed with Mr. Hunting with reference to contracted feet. They might not be cured but they would be much alleviated and the natural form restored by pressing the horse's heels down on the ground. That could be done very well by shoeing with tips. He did not say they were to take the shoe off all at once, but gradually, until they got four nails round the toe. When he ran omnibuses he never was apprehensive about the contracted feet. If a horse showed symptoms of contraction he brought him home, lowered his heels, and shod him with tips, and he generally found that in two or three months' time the animal would do twenty miles a day well and keep sound. His experience was that of Mr. Villar, namely, that when a horse reached the country from town it had generally a superabundance of horn. That he attributed to the fact that in most of the shoeing forges in London the men were paid by piecework and, naturally enough, they got through the job as quickly as they could, simply taking off the old shoes and putting on the new and not touching the feet at all in the sense of removing superabundant horn.

Capt. E. R. C. Butler desired to add a remark or two with regard to the advisability of removing a certain portion of horn for the treatment of corn. This piece of horn, as they knew was the small angle between the inturning of the wall at the heel which they called the "bars." First he asked their attention for a minute to what he considered to be the cause of corn. If they had a hard surface impinging, like a shoe, on a soft surface—say, the sensitive laminæ—they would get no pus unless they had a hard surface on the other side. Where they had two hard surfaces compressing a soft surface between them, there they had the mischief. In a dead foot they found on one side the shoe, in the centre the corn, and on the other side they had the extreme end of the pedal bone. Hence they had two hard surfaces compressing a soft surface between them, and it was necessary, therefore, to remove some portion that was being compressed in order to relieve the pressure. Then, if they reflected for a moment on the difference in the growth of the horn of the sole and the horn of the wall, they found that the horn of the sole grew a certain length and then became detached. That small portion which in a full shoe was imprisoned between the wall and the bar had no opportunity for becoming detached, and consequently if it were not from time to time removed in a slight degree it would cause undue pressure over that particular spot. With respect to the plain and the seated shoe he, like others in the room, had been attracted to the subject of shoeing and had made some observations for himself. In the museum in that college there was a cast of the unshod foot of a wild horse shot in Thibet. He had no doubt that Thibet being a mountainous country, if they took such a hoof in a state of nature, as that the cast of which the museum contained, they could have no better guide to imitate as regarded the preparation of a foot for a shoe. Well, in that case what did they find If they took the trouble to go upstairs and look at the cast they would find that a good half of the sole of that foot was on the ground; he did not think he exaggerated when he said half, and the only portion of the foot that was not in touch with the ground, which did not meet it in contact, was that point round the side and frog. Personally he was a believer in having a very wide and full bearing such as Mr. Hunting advocated—the widest possible for the shoe. Notwithstanding all the changes which had been made in shoes and shoeing, he thought only one had been made in the foot surface of the shoe—that was, the surface which met the horse's foot. Very many hundreds he supposed, had been made on the ground surface but only one—the seated shoe—had been made on the surface which met the foot. There was only a limited surface in the horse's four feet to support a ton weight on the average, and they should take advantage of every little bit of that surface. Concerning the alterations made on the surface of the shoe which met the ground—the ground surface—they were innumerable, and as to these every man had his own particular idea. As had been justly remarked certain towns required a special form of shoe. Sheffield—with which he was

acquainted—had been mentioned. There, undoubtedly, a special form of shoeing was required. But in ordinary circumstances he asked whether there was any necessity for those alterations—calkins for instance—on the ground surface of the shoe. How long would they last? After a horse had been at work a month or six weeks where were they when he came to be shod? They were gone. Did not a horse perform his ordinary work as well without them as with them? Yes. What, then, was the object of them? Mr. Hunting did not say that the raising of the heel half an inch for a month would injure the horse. Why? Because the heel was not raised half an inch for a month, within a week the calkin which raised the heel off the ground was worn away and the foot resumed its ordinary position. Mr. Hunting expressed a desire which he (Capt. Butler) was afraid he could not gratify, to know whether a contraction had ever been cured by a particular shoe; and, if so, to what was the cure due. Contraction, to his mind, except in special cases (and there were many causes of contraction) —contraction, such as Mr. Hunting mentioned was due to the abuse of the foot by the farrier. It was the result of taking away the frog, and of that practise known as opening the heels. By opening the heels he understood the cutting away of the bar or some part of the bar. The bar, he took it, was the strengthener of the heels, the dovetail at the back by which the foot was kept in shape; and if by removing it they improved the appearance of the foot for the time they did so at the cost of weakening it for the time to come, so that the heels closed in. The same effect was produced by taking the frog experimentally off the ground. By cutting one and leaving the other in contact with the ground they could alter the shape of the foot; the one with its frog off would become small, much smaller than its fellow. If this were persisted in they got a contracted foot. Then they had a use for those pads and other devices which were of use in making the fortunes of their inventors, who were assisted by the farriers. Mention had been made of the bright groove or spot visible at the heels of a shoe. This had been attributed to the movement of the heels and consequent intermittent pressure upon the shoe. Personally, he thought they would find even when they shod a horse with a shoe having a full bearing all round, that on removing the shoe it had this bright spot. Whether they eased the heels or whether they did not, and the foot was in contact with the shoe all round, this bright spot appeared. If they carried their minds back a little while they would remember an experiment made in Germany by one Lungwitz and, at the same time, by Veterinary-Captain Smith, who were apparently simultaneously at work on the expansion of the horse's foot. In a word, they found that the horse's foot expanded to an infinitesimal extent, that is it opened out at the heels to say, about the fiftieth of an inch. That opening and closing of the heels, which was so small as practically to be disregarded in shoeing, was the cause of this burnished spot they found on the heels of the shoe. (Applause.)

(To be continued)

Cruelty to a dog.

At Lambeth, William Munz, of York Street, Lambeth, was summoned by the Royal Society for the Prevention of Cruelty to Animals for having cruelly ill-treated a dog. Mr. W. H. Armstrong, solicitor, appeared in support of the summons. Inspector Rogers, an officer of the society, said he called at the defendant's house on the 5th inst., and there saw a box containing a large St. Bernard dog. The animal was lying on its side and its head was tied tightly with a cord to the corner of the box. Witness found a large sore on the side of the dog and numerous sores about the body. The legs were almost hairless, and the tail was half off. Owing to the manner in which the dog was tied it could not move to get either drink or food. The defendant told him that he tied the dog up to prevent it from biting its tail. Mr. Israel Print, veterinary surgeon, said the dog was suffering from mange. The disease had not been properly treated, and the animal appeared to be dying of starvation. The defendant said he did everything he possibly could for the dog, and endeavoured to get the best possible ointment. The was fed with Spratt's biscuits every day, and he had no intention of treating it cruelly. Mr. Biron remarked that this was the most awful case of cruelty that had ever come before him, and sentenced the defendant to two months' hard labour. Notice of appeal was given.

Hasty Police Court "Justice."

William Latchford appealed against a conviction by Mr. Sheil for being drunk while in charge of a pantechnicon van, the sentence imposed being one month's hard labour. The conviction was supported by a large number of police witnesses, all of whom declared appellant was drunk. For the appellant his employer was called, who said he had been in his employ for twenty-six years, and had never been seen drunk. After spending two hours on the case, the judge asked how long it occupied before Mr. Shiel, and was informed that it was concluded in about five minutes. He therefore said he had no hesitation in quashing the conviction, and only regretted that he had not the power to give the appellant the cost to which he had been put.

ARMY VETERINARY DEPARTMENT

Extracts from London Gazette of 8th and 15th May.

Vet.-Lieut. F. Joslen to be Vet.-Captain. Dated 9th May, 1894.

Vet.-Major C. W. Gillard from half-pay to be Vet.-Major, to complete establishment. Dated 16th May, 1894.

Vet.-Lieut. F. C Stratton is placed on temporary half-pay on account of ill-health. Dated 3rd May, 1894.

Vet.-Lieut. F. Eassie arrived from India, 13th inst., having been granted six months sick leave of absence.

Vet.-Lieut. C. B. Freeman left Woolwich on 12th inst., for duty at Camp, Okehampton.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Messrs. H. Singleton, H. Thompson, W. F. Barrett, J. F. Simpson, T. A. Huband, J. Abson, J. Fraser, R. C. Trigger, J. Howard, McLauchlan Young, J. Young, J. H. Carter, F. Austerberry, *American Vet. Review*, *Agric. Journal* (Cape), *Norwich Mercury*.

Several communications are unavoidably held over.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to any friends who may send us cuttings from local papers, containing facts of interest.

Communications for the Editor to be addressed 20 Fulham Road, S.W.